Abstract of the Disclosure

The present invention relates to CD44 binding molecules, preferably anti-CD44 antibodies, and their use in methods for the prevention or reduction of ischemia-reperfusion injury in *e.g.* solid organ transplantation or in patients in shock. The invention further relates to methods wherein levels of soluble CD44 are determined in *e.g.* serum or urine as a prognostic factor for the risk of organ rejection.